

5 IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

INVENTOR: Benjamin R. Willemstyn

TITLE: **OVER-WRAP BAG ENCLOSURE FOR STERILE CONNECTORS**

10 **ABSTRACT**

A hose barb connector or sanitary adapter connector can be attached to various types of containers intended for use in sterile operations, such as in a biotechnology and pharmaceutical fluid processing container system. An over-wrap bag such as a poly-bag (ZIP-LOC® or other type) attached by heat welding to a flange formed near the middle of the connector. The over-wrap bag maintains the sterility of the enclosed end of the connector. The other end of the connector is typically attached to a piece of tubing or conduit in communication with another larger bag, which has been rendered sterile collectively with the connector. Sterile fluids pumped into the bag, either through the connector itself, or through some other opening in the larger bag, will not be contaminated. In another embodiment, where the connector is not attached to another sterile fluid containing bag and it is desired to maintain the entire connector sterile, both ends of the connector (including the attached over-wrap bag) are enclosed by another poly-bag.